

**Comments of Powerex Corp. on
CAISO’s *Interaction of Hourly Intertie Schedules and WEIM Transfers***

Submitted by	Company	Date Submitted
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Powerex appreciates the opportunity to submit comments on CAISO’s May 3, 2022 web meeting to discuss the CAISO’s analysis entitled *Interaction of Hourly Intertie Schedules and WEIM Transfers* (“CAISO Analysis”). Powerex commends the CAISO’s efforts to perform and share analyses that provide insight into various aspects of the CAISO market design.

CAISO Operators’ Extensive Use Of Load Biasing Indicates A Market Design That Fails To Procure All Of The Products And Services Needed To Maintain Reliability

The CAISO Analysis identified large divergence between the volume of EIM Transfers into the CAISO BAA in the Hour Ahead Scheduling Process (HASP), the Fifteen Minute Market (FMM), and the 5-minute Real-Time Dispatch (RTD). The largest divergence was found to arise between FMM and RTD. This divergence appears to be driven largely by CAISO operators’ extensive use of load biasing¹, which occurs largely in HASP and FMM, but for far smaller volumes in RTD. For example, the average quantity of load bias for HE20 in March 2022 was approximately 2,200 MW in both HASP and FMM, but only 130 MW in RTD.²

As has been discussed in multiple other forums, CAISO operators use load biasing in order to force the CAISO market software to commit additional supply. CAISO operators believe this additional supply is necessary to protect reliability in the CAISO BAA, and that such additional supply will not otherwise be procured by the market software given the current CAISO market design. The large and constantly-growing volume of load biasing by CAISO operators is a clear indication that the CAISO’s market design has become outdated and no longer procures the suite of products and service necessary to reliably serve load.

The adverse consequences of load biasing—and of other operator actions to compensate for the current market design—go far beyond the outcomes examined by the CAISO Analysis. Powerex believes it is imperative for the CAISO to modernize its market design such that each market solution—whether day-ahead or in any of the sequential real-time processes—includes sufficient capacity, energy, and flexibility to reliably serve demand.

¹ Load biasing is also referred to as load conformance

² Source: [Imbalance-Conformance-Adjustments-Data-for-March-2022.xlsx](#).

The CAISO Should Not Rely On Anticipated Imports Of EIM Supply To Support Hourly Exports At Its Interties

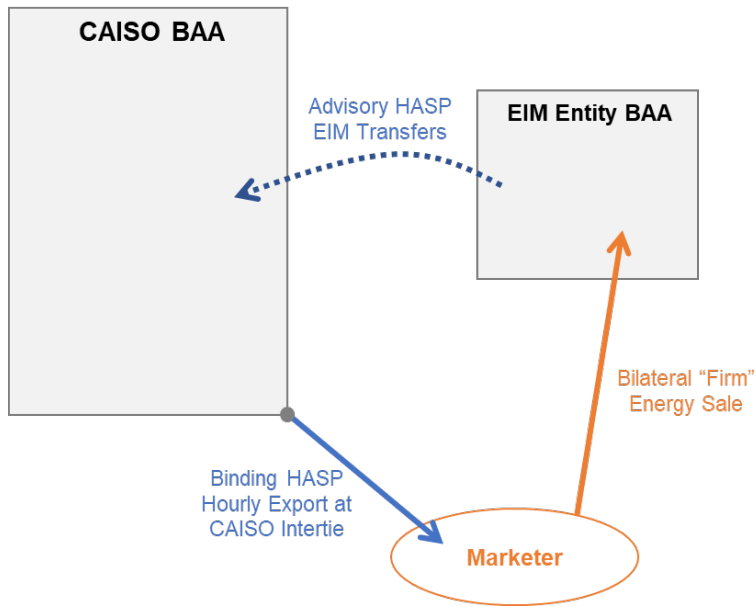
A key finding of the CAISO Analysis is that the HASP solution allows non-binding “advisory” EIM Transfers into the CAISO BAA to enable additional hourly intertie export awards from the CAISO BAA. The CAISO’s counterfactual analysis indicates that CAISO BAA intertie exports in HASP have been supported in large part by anticipated EIM supply from other EIM entities. The CAISO market processes that produce this outcome are unique to the CAISO BAA; Powerex is not aware of any other EIM entity that makes export sales that are unsupported by its own supply and that are only feasible to the extent that it subsequently receives offsetting EIM imports. Continuing to allow this result in the CAISO BAA is problematic for several reasons:

First, committing to exports that rely on anticipated EIM supply is inconsistent with the principle of resource sufficiency, in which each EIM BAA must show it has sufficient resources to support its own obligations, including load and exports. Continuing to allow hourly exports from the CAISO BAA that are supported by anticipated (but non-binding) EIM Transfers is more likely to cause the CAISO BAA to not be resource sufficient prior to EIM operation.

Second, relying on advisory EIM Transfers to enable additional hourly exports can leave the CAISO BAA with aggregate commitments it cannot fully support, and may exacerbate reliability challenges in the CAISO BAA if the EIM supply anticipated in the HASP does not materialize.

Third, the additional exports cleared in HASP appear to consume a substantial fraction of the additional imports sought by CAISO operators through load biasing actions in order to maintain reliability in the CAISO BAA. The clearing of additional HASP imports therefore appears likely to be one of the reasons that CAISO operators apply a large and growing quantity of load bias.

Fourth, continuing to allow anticipated EIM supply to support additional hourly intertie exports appears inconsistent with the design of the Western EIM as a market for transacting sub-hourly energy imbalances *between and among* EIM entities (including the CAISO BAA). As currently implemented, hourly exports at CAISO interties can be used by CAISO market participants as a conduit to access and export EIM supply out of the EIM area, potentially even resulting in the entire EIM area becoming a net exporter. Given this design, it is even possible for a marketer to (1) sell bilateral “firm” energy to a customer located in an EIM Entity BAA; (2) source the energy to deliver on that bilateral sale through a self-scheduled hourly export from the CAISO BAA; and (3) have the HASP solution support that delivery with anticipated EIM Transfers sourced *from the very same EIM Entity BAA receiving the bilateral delivery*. Such outcomes do nothing to support reliability, nor do they provide any market efficiency benefits. Rather, they may simply lead to EIM entities paying net settlement amounts to receive energy deliveries that are ultimately sourced indirectly from themselves through the EIM.



In light of these multiple problematic outcomes, Powerex urges the CAISO to take steps to either:

- A. Limit net exports cleared in HASP to a quantity that can be supported by supply in the CAISO BAA (*i.e.*, excluding advisory EIM Transfers); or
- B. Clearly identify HASP exports that are not supported by resources in the CAISO BAA as “non-firm energy” on the applicable e-Tag.